

ruggedness of the surface; and chiefly from a kind of tarnish, or dirty smoaky substance, which adheres to the surface of that very hard body; and though the pointed parts cannot penetrate the substance of Glass, yet may they find pores enough in the tarnish, or at least make them.

This Structure I somewhat the more diligently survey'd, because I could not well comprehend, how, if there were such a glutinous matter in those supposed Sponges, as most (that have observ'd that Object in a Microscope) have hitherto believ'd, how, I say, the Fly could so readily unglew and loosen its feet: and, because I have not found any other creature to have a contrivance any ways like it; and chiefly, that we might not be cast upon unintelligible explications of the *Phænomena* of Nature; at least others then the true ones, where our senses were able to furnish us with an intelligible, rationall and true one.

Somewhat a like contrivance to this of Flies shall we find in most other Animals, such as all kinds of Flies and case-wing'd creatures; nay, in a Flea, an Animal abundantly smaller then this Fly. Other creatures, as Mites, the Land-Crab, &c. have onely one small very sharp Tallon at the end of each of their legs, which all drawing towards the center or middle of their body, inable these exceeding light bodies to suspend and fasten themselves to almost any surface.

Which how they are able to do, will not seem strange, if we consider, first, how little body there is in one of these creatures compar'd to their superficies, or outside, their thickness, perhaps, oftentimes, not amounting to the hundredth part of an Inch: Next, the strength and agility of these creatures compar'd to their bulk, being, proportionable to their bulk, perhaps, an hundred times stronger then an Horse or Man. And thirdly, if we consider that Nature does always appropriate the instruments, so as they are the most fit and convenient to perform their offices, and the most simple and plain that possibly can be; this we may see further verify'd also in the foot of a Louse which is very much differing from those I have been describing, but more convenient and necessary for the place of its habitation, each of his leggs being footed with a couple of small claws which he can open or shut at pleasure, shap'd almost like the claws of a Lobster or Crab, but with appropriated contrivances for his peculiar use, which being to move its body to and fro upon the hairs of the creature it inhabits, Nature has furnish'd one of its claws with joints, almost like the joints of a man's fingers, so as thereby it is able to encompass or grasp a hair as firmly as a man can a stick or rope.

Nor, is there a less admirable and wonderfull *Mechanism* in the foot of a Spider, whereby he is able to spin, weave, and climb, or run on his curious transparent clew, of which I shall say more in the description of that Animal.

And to conclude, we shall in all things find, that Nature does not onely work Mechanically, but by such excellent and most compendious, as well as stupendious contrivances, that it were impossible for all the reason in the world to find out any contrivance to do the same thing that should have more convenient properties. And can any be so sottish,